

REMARKS

Claims 1, 3-6, 8-10, 12, 14-15 and 19-22 are pending in the application all of which stand rejected.

This is an earnest attempt to put all pending claims in proper form for immediate allowance. Reconsideration and allowance of all pending claims is respectfully requested in view of the following:

Improper Final Rejection – MPEP 706.07(a)

It is submitted that the present rejection is an improper Final Rejection. It is respectfully requested that finality of this rejection be withdrawn. According to MPEP 706.07(a) a "second or any subsequent action on the merits in any application . . . should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed." Emphasis added. It is believed that the references used in this Final Rejection have not previously been used to reject the currently pending claims and thus, are not "of record". It is also submitted that it should be reasonably expected that when an Office Action rejects the claims, the claims are likely to be amended to recite characteristics of the disclosed embodiments that are not limiting, but explanatory, and are readily disclosed in the specification and shown in the figures. Therefore, it is respectfully submitted that the finality of this rejection is improper and should be withdrawn at least because the amendments should have been reasonably expected. In addition, the Applicant has not had a prior opportunity to consider the references and thus could not have had a proper opportunity develop clear issues between the Applicant and the Examiner before appeal. See MPEP 706.07.

Responses to Rejections to Claims – 35 U.S.C. §102

Claims 1, 3-6 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Reipur (U.S. Patent No. 5,864,220) (Reipur hereinafter). This rejection is not applicable to the pending claims.

The USPTO provides MPEP §2131 that: "To anticipate a claim, the reference must teach every element of the claim."

Therefore, to support these rejections with respect to claim 1, Reipur must contain all of the above-claimed elements. However, this patent, at least, does not disclose "receiving the alternative current (AC) input; receiving a first feedback signal indicative of a target voltage

required by the load, wherein the first feedback signal is an external feedback; receiving a second feedback signal indicative of the DC output, wherein the second feedback signal is an internal feedback; providing a controller module included in an AC-DC adapter and operable to receive the first feedback signal and the second feedback signal; providing a converter in the AC-DC adapter; the controller module adjusting a control signal, responsive to receiving the first and second feedback signals, to the converter to maintain the DC output within a predefined range of the target voltage; and during a charging phase, a difference between the DC output and the target voltage is always positive while providing a charge to the load, and the DC output is reduced to a predefined value upon completion of providing the charge to the load," as defined in the specification and figures of the pending application.

For example, the Final Rejection states on page 2 that Reipur discloses in column 12, lines 49-61, receiving a first feedback signal indicative of a target voltage required by the load, wherein the first feedback signal is an external feedback. However, it is submitted that no such disclosure is found the that section of Reipur. To the contrary, the relevant section of Reipur relates to and discloses determining "the real value of the battery capacity" but, makes no reference to receiving a first feedback signal indicative of a target voltage required by the load, wherein the first feedback signal is an external feedback.

The Final Rejection also states on page 2 that Reipur discloses in column 14, line 51 – column 15, line 5, receiving a second feedback signal indicative of the DC output, wherein the second feedback signal is an internal feedback. However, it is submitted that no such disclosure is found the that section of Reipur. To the contrary, the relevant section of Reipur relates to and discloses that "a more exact measurement is obtained if the charging current to the battery is cut off for a short period before the voltage is measured" but makes no reference to receiving a second feedback signal indicative of the DC output, wherein the second feedback signal is an internal feedback.

In fact, a search of Reipur reveals that the term "feedback" is not found anywhere in the specification of Reipur. Thus, it is submitted that Reipur could not disclose all of the elements of claim 1. As a result, the previous rejections based on 35 U.S.C. 102(b) cannot be supported by Reipur as applied to claim 1. Therefore, it is submitted that claim 1 and its dependent claims are allowable and thus, a notice of allowance of claims 1, 3-6 and 8-10 is respectfully requested.

Responses to Rejections to Claims – 35 U.S.C. §103

Claims 12, 14-15 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reipur in view of Unno (U.S. Patent No. 7,183,748 or Japanese Patent Cooperation Treaty

(PCT) Application No. WO 01/59905 A1 for date purposes) (Unno hereinafter). This rejection is not applicable to the amended claims.

As the PTO recognizes in MPEP §2142:

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

The USPTO clearly cannot establish a *prima facie* case of obviousness in connection with the amended claims for the following reasons:

35 U.S.C. §103(a) provides that:

[a] patent may not be obtained...if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.... (emphasis added)

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, the references, alone, or in any combination, at least, do not teach or suggest "a controller module included in the AC-DC adapter and operable to receive a first feedback signal input indicative of a target voltage required by a load, wherein the first feedback signal is an external feedback, and a second feedback signal input indicative of the second DC output, wherein the second feedback signal is an internal feedback, the controller module adjusting the control signal, responsive to the first and second feedback signal inputs, to the buck converter module to maintain the second DC output to be within a predefined range of the target voltage," as recited in independent claims 12 and 22 and defined throughout the figures specification of the pending application.

As discussed above, with reference to the 35 U.S.C. 102 rejection, Reipur fails, at least, to disclose receiving the alternative current (AC) input; receiving a first feedback signal indicative of a target voltage required by the load, wherein the first feedback signal is an external feedback; receiving a second feedback signal indicative of the DC output, wherein the second feedback signal is an internal feedback; providing a controller module included in an AC-DC adapter and operable to receive the first feedback signal and the second feedback signal; providing a converter in the AC-DC adapter; the controller module adjusting a control signal, responsive to receiving the first and second feedback signals, to the converter to maintain the DC output within a predefined range of the target voltage; and during a charging

phase, a difference between the DC output and the target voltage is always positive while providing a charge to the load, and the DC output is reduced to a predefined value upon completion of providing the charge to the load." The deficiencies of Reipur, in this sense, are not remedied by Unno, which is cited only for disclosing a dc-dc converter.

Therefore, it is impossible to render the subject matter of the claims as a whole obvious based on a single reference or any combination of the references, and the above explicit terms of the statute cannot be met. As a result, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and a rejection under 35 U.S.C. §103(a) is not applicable.

There is still another compelling, and mutually exclusive, reason why the references cannot be combined and applied to reject the claims under 35 U.S.C. §103(a).

The PTO also provides in MPEP §2142:

[T]he Examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the Examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. ...[I]mpermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

In combining multiple references for a 103 rejection, the Supreme Court has ruled that the "teaching, suggestion, or motivation (TSM) test" still applies, but should be used in a more "expansive and flexible" manner. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739. The Court stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *Id.* at 1741, emphasis added.

In the present case, the Examiner has not expressed any reason why a person of ordinary skill in art would combine Reipur with Unno in the way the pending claims do.

Thus, in the present case it is clear that the USPTO's combination arises solely from hindsight based on the present disclosure without any reason why a person of ordinary skill in the art would combine the references as required by the claims. Therefore, for this mutually exclusive reason, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and the rejection under 35 U.S.C. §103(a) is not applicable.

Therefore, independent claims 1, 12 and 22 and their respective dependent claims are submitted to be allowable.

In view of all of the above, the allowance of all pending claims is respectfully requested.

The Examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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